REMARKS:

Claims 1-6 and 9-10 are in the case and presented for consideration.

Claims 1-6 and 9-10 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the invention. The examiner has stated that the claims are narrative, indefinite, replete with grammatical errors, and in some cases, lacking antecedent basis. Claims 1-6 and 9-10 have been drafted to avoid the examiner's rejection under 35 U.S.C. §112, second paragraph, and are believed to be in proper form.

Claims 1-2 and 9-10 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,084,671 to Holcomb. Specifically, the examiner states that Holcomb discloses a laser source, a detector, and a spatial filter downstream from the examined object as applied to claims 1 and 9.

Applicant respectfully submits that Holcomb '671 fails to teach at least one element recited in claims 1 and 9. Claim 1 recites a device that includes at least one laser light source (1), a detector (28) for light (13) that is reflected by the surface (10) to be inspected, and at least one mode filter (15; 15.1) between the surface (10) and the detector (28). Holcomb '671 fails to teach a mode filter. Holcomb '671 only teaches a spatial filter which is very different from a mode filter (Holcomb '671 at col. 6, lines 41-49).

Paragraph 8 of the specification states, "when the Guoy principle is applied to the mode filter, a mode is removed from a light beam containing a plurality of modes." On the other hand, a spatial filter does not remove a mode of the applied laser light in Holcomb '671. The spatial filter provides a beam of light with a Gaussian intensity profile, and rough surfaces can be measured by the spatial filter deviation of the

reflected beam due to diffused scattering caused by the rough surface. An inverse spatial filter is then necessary for removing the Gaussian intensity profile from the beam resulting in a non-Gaussian difference-image beam profile.

Furthermore, the mode filter also performs a spectral filtering of the light that is applied to the detector. As a result, a larger part of the scatter signal from air is suppressed. This includes Brillouin scattering and Rayleigh scattering to some extent. The size of the detected defect can be determined on the basis of the change of mode. A spatial filter does not remove certain spectral frequencies to highlight features in a remaining image. Instead, a spatial filter transforms an image by measuring the non-Gaussian difference-image beam profile as a result of scattering due to rough surfaces. Therefore, a spatial filter does not suppress scatter signal from air such as Brillouin scattering and Rayleigh scattering.

Additionally, the components which are used for spatial filtering are entirely different from the mode filter. The spatial filter assembly in Holcomb '671 consists of two Fourier lenses and a pinhole filter. On the other hand, the mode filter of the present invention is a resonator for example. The laser light source is provided with an optical resonator which includes, mirrors that are adjustable relative to one another and are situated at a distance from one another in the beam path of an emitted light beam. The mirrors are constructed as plane mirrors or as concave mirrors for ease of adjustment. Between these mirrors a standing wave is formed when the resonance condition is satisfied.

Finally, it is noted that claim 1 recites the limitation of "at least one mode filter (15; 15.1) between the surface (10) and the detector (28)." According to the abstract, Holcomb '671 teaches an apparatus comprising:

> a spatial filter [34], positioned along the optical path downstream from the light source, for giving the beam of light a Gaussian intensity profile [18]; positioning means [22] for positioning the material [20] in the optical path downstream from the spatial filter [34]; an inverse spatial filter [40], positioned along the optical path downstream from the material, for removing from the beam a Gaussian intensity profile; and a detector [46], positioned along the optical path downstream from the inverse spatial filter, for detecting the beam.

The spatial filter is therefore not between a surface and a detector. The spatial filter lies upstream from the positioning means and material with a surface.

In summary, Holcomb '671 does not teach a mode filter for removing modes or certain spectral frequencies. Holcomb '671 only teaches a spatial filter for image transformation which also requires an inverse spatial filter. Holcomb '671 fails to teach a mode filter that lies between a surface and a detector. Accordingly, the remaining dependent claims also contain the same limitation and are therefore not anticipated by Holcomb '671.

The examiner has also rejected claims 1-6 and 9-10 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,151,127 to Kempe. Specifically, the examiner states that Kempe '127 discloses a combined laser source, a photodetector, and a phase modulator as a mode filter associated with the reflected light.

Applicant submits that the phase modulator taught by Kempe '127 is not a mode filter. A phase modulator, according to Kempe '127, is "an acousto-optic modulator, which is operated by a signal from a CW oscillator 35, to modulate beam 24, and hence each wavelength of the beam, by a certain frequency produced by oscillator 35, such as 100 MHz" (col. 4, lines 51-55), or alternatively, "the acousto-optic modulator may be replaced by a piezo-actuated moving mirror which produces a frequency (Doppler) shift in the reference beam, or by an electro-optical modulator." (col. 4, lines 59-62). A

phase modulator does not remove modes. Accordingly, Kempe '127 does not teach a mode filter. Therefore, claims 1 and 9, and their respective dependent claims are not anticipated by Kempe '127.

Finally, the examiner has rejected claims 5 and 6 under 35 U.S.C. 103(a) as being obvious and thus unpatentable over U.S. Patent 6,151,127 to Kempe in view of Mueller et. al. The examiner states that although Kempe '127 does not disclose use of a Guoy phase shift, Mueller shows that "the use of a Guoy phase shift is well known."

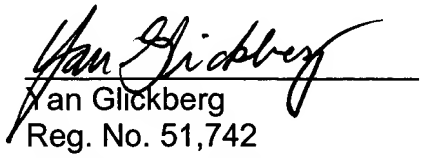
As stated above, Kempe '127 fails to teach a mode filter. Mueller also does not teach a mode filter. Therefore, claims 5 and 6 recite an element which is not taught by the prior art. Therefore, claims 5 and 6 are not obvious from the cited prior art.

Accordingly, the application and claims are believed to be in condition for allowance, and favorable action is respectfully requested. No new matter has been added.

If any issues remain which may be resolved by telephonic communication, the Examiner is respectfully invited to contact the undersigned at the number below, if such will advance the application to allowance.

Favorable action is respectfully requested.

Respectfully submitted,



Yan Glickberg
Reg. No. 51,742
Attorney for Applicants
(845) 359-7700

Dated: August 25, 2003

NOTARO & MICHALOS P.C.

100 Dutch Hill Road, Suite 110
Orangeburg, New York 10962-2100

Customer No. 21706